

1332989

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office

June 14, 2005

THIS IS TO CERTIFY THAT ANNEXED HERETO IS A TRUE COPY FROM
THE RECORDS OF THE UNITED STATES PATENT AND TRADEMARK
OFFICE OF THOSE PAPERS OF THE BELOW IDENTIFIED PATENT
APPLICATION THAT MET THE REQUIREMENTS TO BE GRANTED A
FILING DATE.

APPLICATION NUMBER: 60/531,647
FILING DATE: *December 22, 2003*
RELATED PCT APPLICATION NUMBER: PCT/US04/43410



Certified by

Don W. Dudas

Under Secretary of Commerce
for Intellectual Property
and Director of the United States
Patent and Trademark Office

BEST AVAILABLE COPY



16569 U.S. PTO

PTO/SB/16 (08-03)

Approved for use through 07/31/2006. OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PROVISIONAL APPLICATION FOR PATENT COVER SHEET

This is a request for filing a PROVISIONAL APPLICATION FOR PATENT under 37 CFR 1.53 (c).

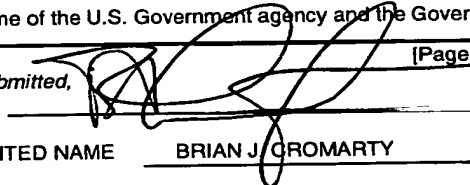
EL 995078912 IIS

INVENTOR(S)					
Given Name (first and middle (if any))	Family Name or Surname	Residence (City and either State or Foreign Country)			
Mark Gilmore	Mears	Zionsville, Indiana			
Bret David	Hawkins	Brownsburg, Indiana			
<input checked="" type="checkbox"/> Additional inventors are being named on the 1 separately numbered sheets attached hereto					
TITLE OF THE INVENTION (500 characters max)					
SELECTABLE CHANNEL SEARCH					
Direct all correspondence to:		CORRESPONDENCE ADDRESS			
<input type="checkbox"/> Customer Number					
OR					
<input checked="" type="checkbox"/> Firm or Individual Name	JOSEPH S. TRIPOLI, THOMSON LICENSING INC.				
Address	PATENT OPERATIONS				
Address	P. O. BOX 5312				
City	PRINCETON	State	NJ	ZIP	08543-5312
Country	USA	Telephone	609 - 734-6834	Fax	609 - 734-6888
ENCLOSED APPLICATION PARTS (check all that apply)					
<input checked="" type="checkbox"/> Specification Number of Pages		2		<input type="checkbox"/> CD(s), Number	
<input type="checkbox"/> Drawing(s) Number of Sheets				<input type="checkbox"/> Other (specify)	
<input type="checkbox"/> Application Data Sheet. See 37 CFR 1.76					
METHOD OF PAYMENT OF FILING FEES FOR THIS PROVISIONAL APPLICATION FOR PATENT					
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27.				FILING FEE AMOUNT (\$) <div>160</div>	
<input type="checkbox"/> A check or money order is enclosed to cover the filing fees					
<input checked="" type="checkbox"/> The Director is hereby authorized to charge filing fees or credit any overpayment to Deposit Account Number: 07-0832					
<input type="checkbox"/> Payment by credit card. Form PTO-2038 is attached.					
The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government.					
<input type="checkbox"/> No.					
<input type="checkbox"/> Yes, the name of the U.S. Government agency and the Government contract number are: _____					

15535 U.S. PTO
60/531647

122203

Respectfully submitted,
SIGNATURE



[Page 1 of 2]

Date 12/22/03

TYPED or PRINTED NAME

BRIAN J. GROMARTY

REGISTRATION NO.
(if appropriate)

see attached

Docket Number:

PU030310

TELEPHONE 609 734 6804

USE ONLY FOR FILING A PROVISIONAL APPLICATION FOR PATENT

This collection of information is required by 37 CFR 1.51. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 8 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop Provisional Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Additional Page

Approved for use through 07/31/2006. OMB 0651-0032

Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Docket Number **PU030310**

Number 2 of 2

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

SELECTABLE CHANNEL SEARCH

Automatically searching for all available channels in a multi-signal HDTV (NTSC, ATSC, QAM) takes a very long time because of all the variables that must be examined by the TV. The typical method of finding a TV's channels consists of scanning all possible frequencies for all possible channels. In order to speed up the channel search, flexible options are offered to the user so that he may select only those search options that he wants. This eliminates unwanted searches and saves time.

At a minimum, an HDTV (or HDTV set-top box tuner) is able to receive and decode ATSC signals (i.e., so-called digital-TV signals). ATSC major channels 0 to 999 need to be searched for available channels. In addition, for each ATSC major channel, minor channels 1-999 need to be searched. If the HDTV is able to receive and decode 64QAM and 256QAM digital-cable channels, the major and minor channels of those signal formats need to be searched too. And if the HDTV is able to receive and decode NTSC signals too, then the TV must search for those available channels. If the HDTV has more than one RF input (e.g., one for cable and one for over-the-air signals), then the channel search becomes even longer if both are searched. A channel search is made longer, too, if channels that have already been found are "found" again, and if the HDTV has to detect whether the signal is cable or antenna.

In the RCA ATC311 HDTV chassis (a.k.a., DM2), channel search time was decreased by offering a second channel search option which only searched the currently-tuned antenna and did not do autodetection of cable or air signal since it simply used the current air or cable configuration.

The selectable channel search will allow the user to configure numerous items to search for, allowing him to customize or optimize the search for his particular setup or needs. This could save considerable time for the channel search. This allows maximum flexibility in either making the search as quick or as complete as possible. Examples of various items to select include which tuners to search (e.g. Cable, Air, Antenna A, Antenna B, etc.), digital channels, analog channels, previously found channels, and cable versus air detection. Other search items may also exist. This selectable channel search could be implemented in various manners. One example is as follows as implemented in the ATC32x chassis.

The user is offered a "Channel Search" TV screen with six checkboxes. A checkbox is a control element whose selection is not mutually exclusive to other related selections.

The first two checkboxes allow the user to select which of the two RF inputs should be searched for available channels, or if both RF inputs should be searched. In the case of the ATC32x HDTV chassis, the RF inputs are named "Cable Input" and "Antenna Input". Searching only one of the RF inputs would be useful if the user only has one RF signal to provide for the TV, or if a change recently occurred to one of the RF signals (e.g., change in the analog cable-TV lineup or mapping).

The third and fourth checkboxes allow the user to select whether to search for digital channels, analog channels, or both. If the "Digital channels" checkbox is selected, then only digital channels (i.e., ATSC, 64QAM, 256QAM) are searched; NTSC channels (i.e., analog air and analog cable) are not searched. This would be a useful feature to enable if the user was interested in only "collecting" digital channels in his channel list, or to acquire the newest digital channel that just recently started broadcasting. If the "Analog channels" checkbox is selected, then only analog channels (i.e., NTSC (analog air and analog cable) are searched; ATSC, 64QAM, 256QAM digital channels are not searched.

The fifth checkbox allows the user to select whether to detect the antenna or cable setting or not. Not detecting that setting during a channel search and just using the previously-detected or default setting would save time.

The last checkbox allows the user to select whether previously found channels should be searched for again or whether they should be skipped. Skipping the search for previously found channels would be useful when the signal on a particular RF input has not changed but perhaps a new channel or channel lineup (e.g., analog cable) became available.

The fewer the options selected, the faster the channel search should be. However, at least one input (cable or antenna) and one channel type (digital or analog) needs to be selected otherwise an error message is displayed which asks the user to correct the condition.

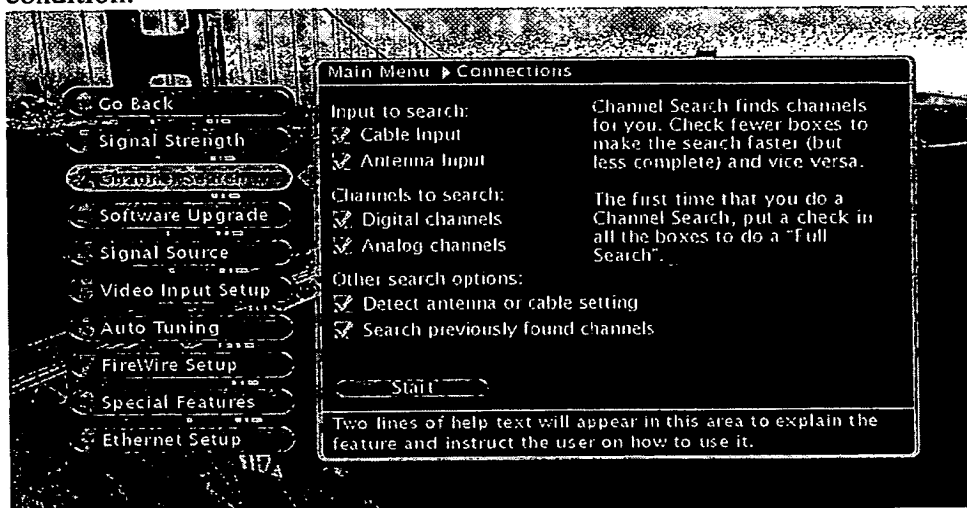


Figure 1 – Channel Search Screen

BEST AVAILABLE COPY

Document made available under the Patent Cooperation Treaty (PCT)

International application number: PCT/US04/043410

International filing date: 22 December 2004 (22.12.2004)

Document type: Certified copy of priority document

Document details: Country/Office: US
Number: 60/531,647
Filing date: 22 December 2003 (22.12.2003)

Date of receipt at the International Bureau: 27 June 2005 (27.06.2005)

Remark: Priority document submitted or transmitted to the International Bureau in compliance with Rule 17.1(a) or (b)



World Intellectual Property Organization (WIPO) - Geneva, Switzerland
Organisation Mondiale de la Propriété Intellectuelle (OMPI) - Genève, Suisse